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ABSTRACT

In 1987, Congress directed each of the regional educational laboratories to develop a "rural initiative." Beginning in 1991, the U.S. Department of Education directed that the laboratories devote 25% of their effort to helping rural schools by fostering innovative rural education programs that promise to improve instruction, and by building the capacity of state and local educators to respond to the changing needs of rural students and communities. This report, with brief summaries of each Laboratory's activities, focuses on rural-school improvement activities supported by the laboratories. These activities are aimed at making rural educators more visible to each other and to policymakers; fostering collaboration among educators, state agencies, and businesses; using research and development information; encouraging community involvement and linking education to local economic development; expanding and improving inservice teacher education and staff development; extending the curriculum; increasing school and library resources through networking; expanding student support and parent involvement; and providing training in distance education and other technologies. This report contains a project index and a bibliography of 84 publications on rural education available from the regional laboratories or the ERIC Clearinghouse on Rural Education and Small Schools. (SV)

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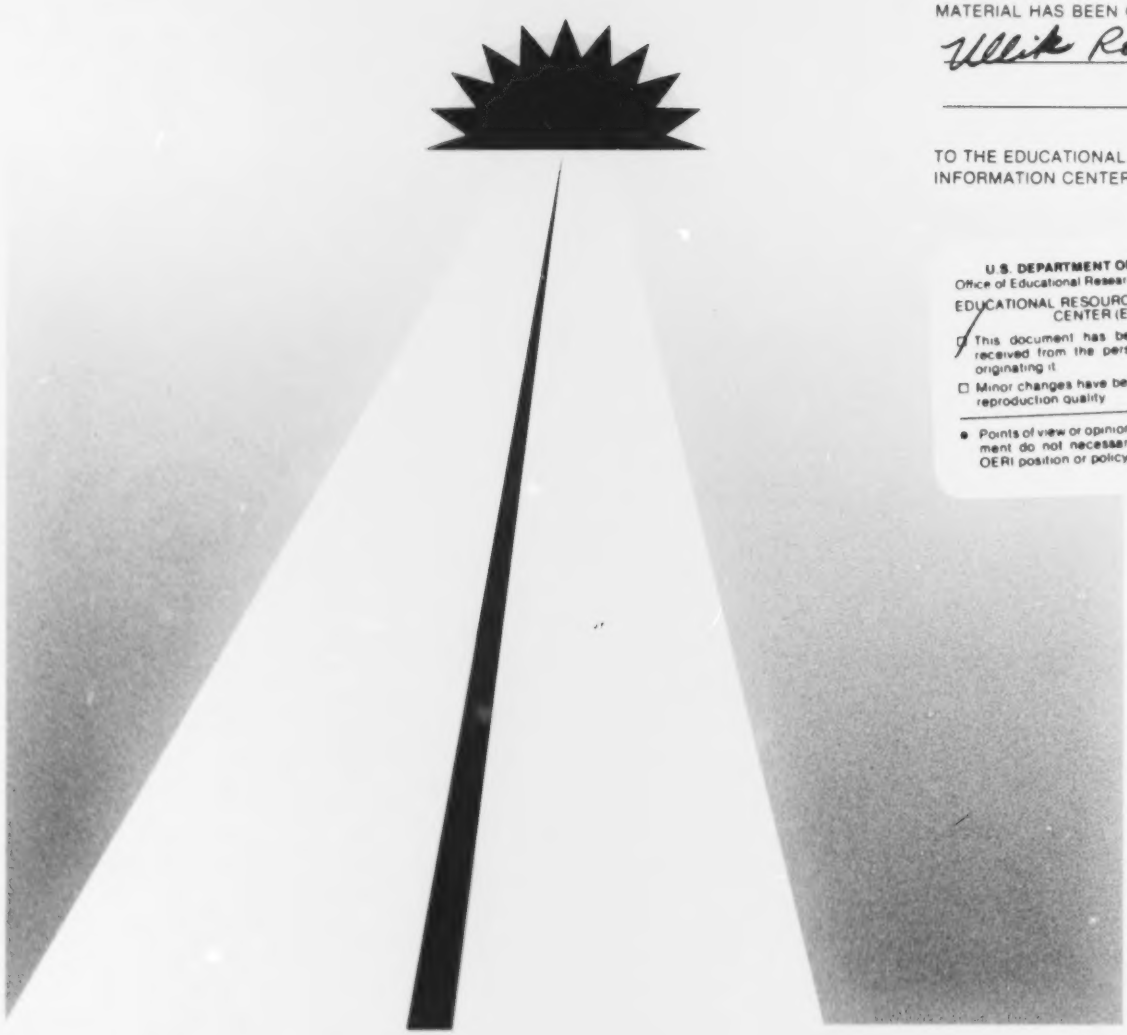

Council for Educational Development and Research
The Regional Educational Laboratories

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RURAL SCHOOLS
ON THE ROAD TO REFORM

by Anne C. Lewis

Council for Educational Development and Research
The Regional Educational Laboratories

EDTALK

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Preface

Four years ago, the Council for Educational Development and Research published *End of the Road: Rural America's Poor Students and Poor Schools.* This document presented a grim, relatively unknown story of America's "forgotten population" — children attending small, rural school districts that suffer from chronic and severe "poorness." It recommended that the nation's regional educational laboratories continue the initiative begun in 1987 to improve education in small, rural schools. Soon afterwards, the U.S. Congress directed that one-quarter of the regional educational laboratories' efforts be directed to rural schools.

The regional educational laboratories reaffirmed their charge to move rural schools from the end of the road onto the road to reform.

They identified promising practices and programs and introduced them to poor, isolated school districts. They brought coalitions of educators, businesspeople, and citizens together to plan and conduct revitalization programs for their rural communities. And, they opened up staff development opportunities to teachers and administrators in remote school districts. Nationally, the problems and unique challenges of rural schools became more visible.

The *EdTalk* series consists of occasional papers reporting on critical issues that emerge as a result of federal investment in the research and development work of the regional educational laboratories. It is the nature of research and development that sometimes innovations don't work as they are intended at a given site. When this happens, the laboratories stay on the scene, adapting and retuning programs and practices until they produce the desired effect. This *EdTalk* focuses on some of the many improvement activities that are taking place in rural schools.

Understanding the issues involved in rural school reform is the first step in improving quality and equity in rural schools. Learning what to do to meet the challenge is the second. The nation's regional educational laboratories are a great resource for information and ideas about rural education. For more information about any of the activities described in this *EdTalk*, we encourage you to contact the laboratory in your region.

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Introduction

Once, we were a nation of rural schools. Today, while fewer in number, these schools still play a central role in rural community life and well-being. Yet, for years they have struggled, with little public understanding, to remain a viable part of the nation's education system.

This report is about the results of a significant reawakening of federal policy interest in rural education. And it is about the potential of such policymaking.

Congress, responding to growing concerns that rural schools were not receiving an equitable share of federal programs, in 1987, directed that each of the nine regional educational laboratories* develop a "rural initiative." It provided special funding for this effort through the U.S. Department of Education's Office of Educational Research and Improvement (OERI).

This report is about the results of a significant reawakening of federal policy interest in rural education.

Beginning in 1991, the U.S. Department of Education directed the regional educational laboratories to devote at least 25 percent of their effort to helping rural schools. With these funds, the laboratories are: (1) to concentrate on innovative rural education programs that show promise of upgrading instruction, and (2) to build the capacity of state and local educators to respond to the changing needs of rural students and communities.

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* A tenth regional education laboratory was established in 1990.

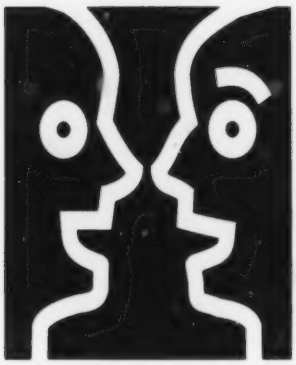
Linking rural schools with regional educational laboratories was a natural match. As officials at the Far West Laboratory for Educational Research and Development in San Francisco, California, point out, rural people often see "outsiders as passers-through, insensitive to the facts of rural life and having no stake in the community's future." Staff from the regional educational laboratories, however, are sensitive to local values and traditions and have stable resources that are available over long periods of time to help rural educators and community leaders.

Staff from the regional educational laboratories, however, are sensitive to local values and traditions...

Thus, the Northwest Regional Educational Laboratory in Portland, Oregon, for example, was able to design its rural initiative around three important strengths — the use of existing networks, cooperatives, and rural school improvement organizations; the full involvement of rural educators in the design, development, and evaluation of their improvement efforts; and a highly personalized interaction with local schools. Laboratories in other regions of the country worked in a similar collaborative vein.

With the rural initiatives, expert knowledge became accessible to previously isolated rural educators and their students; supportive networks were expanded or started; and the educational concerns of rural America became much more apparent to policymakers at all levels. In addition, the rural initiatives created a nationwide cadre of highly knowledgeable and competent rural education specialists in the regional educational laboratories who worked right next to educators and policymakers in the improvement process.

The rural initiatives began in each region with an assessment of the needs of rural schools and rural educators, supplemented by data gathering to quantify what rural schools looked like and how well they were doing. While priorities differed among regions, commonalities in rural education also emerged. These commonalities became the beginning of a national agenda for revitalizing rural schools.



Small is Necessary: Strengthening Rural Schools

The nation's public school system is like a lovingly built stone fence, climbing and dipping across the landscape. As a former education commissioner of a largely rural state once commented, one first notices the large stones in the fence, then the small stones tapped into the spaces between the big ones. Without the small stones, the fence eventually would lose its strength. It would no longer hold together; it would fall.

One notices another detail about this fence of stones. The small stones, the chinks that fill the cracks, are all different — in shape, or color, or size. Each is unique.

So it is with the nation's public school system. It is built of a variety of schools — big and small, urban, suburban, and rural — separate but part of a whole.

[Rural schools] are responsible for educating 6.6 million children and account for more than 22,000 school buildings, about one-fourth of the total school buildings in the country.

In this mosaic, rural schools are sometimes overshadowed by the attention given to urban schools and the growth of suburban schools. But rural schools are an essential part of the nation's education system. They are responsible for educating 6.6 million children and account for more than 22,000 school buildings, about one-fourth of the total school buildings in the country.

The problems of urban schools may be "noisier," but those of rural schools are just as threatening to their communities, and just as discouraging to the futures of their students. Neglect, constant budget cutting, and community upheavals have affected much of rural education for many years.

Rural schools' struggles inevitably affect all of American society. For various reasons, a large percentage of rural students eventually migrate to metropolitan areas. The education these young people receive in the country's more isolated schools forms the base for their ability to succeed as urban dwellers.

Likewise, many teachers and administrators begin their careers in rural schools. Some move on to metropolitan areas with the skills they learned as rural educators. Thus, rural schools serve as incubators for the education and skills of young people and adults who form part of the mainstream of urban life.

Rural schools' struggles inevitably affect all of American society.

Furthermore, just as each small stone in a fence is different from all of the others, no one vision of rural schools exists. A rural student could be attending school on an island off the Atlantic seaboard, or in the middle of a Kansas wheat field, or at a Colorado ski area, or in Mississippi's Delta Region, or on a Montana reservation, or in California mountains that look down on creeping residential development. Schools in all these areas are rural; they are all different. They all have strengths and needs.

Agreeing on a Definition

If rural schools are not similar, how do you define what they are?

The most common definition comes from the U.S. Bureau of the Census. Its concept of rural is a town or county that has a population of less than 2,500.

While this simplifies the process for deciding what is rural, it also means that rural schools can exist in a metropolitan county, such as Montgomery County, Maryland, on the outskirts of Washington, D.C. Or that there are more students attending schools in the rural areas of New Jersey than in the rural areas of Montana, simply because population density in New Jersey is so much greater.

Rural schools tend to be small, although rural districts may be very large geographically. The percentage of rural schools within states varies greatly, from less than 4 percent in Rhode Island to more than 76 percent in South Dakota.

In nine states, rural schools constitute more than 50 percent of the total. In 30 states they represent at least 30 percent of all schools.

In only two states — Kansas and South Dakota — students enrolled in rural schools make up more than 50 percent of the state's total student population.

An adequate definition of rural schools, admits one long-term writer and researcher on rural education, "does not exist." Once beyond saying that rural is non-urban, says Paul Nachtigal of the Mid-continent Regional Educational Laboratory in Aurora, Colorado, "there is little else that is generalizable across the rural areas of the country."

For that reason, Nachtigal cautions against using national aggregate data to characterize rural schools. He cites the rural dropout rate as one example of how aggregate data can be misleading. On an overall basis, the rural high school dropout rate is slightly lower than the national rate. Yet, small unified districts in Nebraska have a dropout rate of less than 1 percent. This means that rural school dropout rates in some other places must be very high.

The National Center for Education Statistics, working with the U.S. Bureau of the Census, is preparing new computerized methods for analyzing data by census block. Scheduled for completion in the spring of 1993, this kind of computerized mapping promises to provide a clearer picture of rural school districts.

Common Strengths

Despite their individuality, the nation's rural schools share several common characteristics. Some of these characteristics are legacies of the time when rural schools shaped and dominated education in this country; others emerged from events and situations that stem from an unprecedented pace of change for rural schools. Rural schools are undergoing, say many experts, the most rapid change of any segment of American education.

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Rural schools tend to be smaller, more personal settings where nearly everyone is on a first-name basis. About 40 percent of rural elementary schools enroll fewer than 200 students (compared to only 8 percent of urban schools). Almost

three-fourths of rural secondary schools enroll fewer than 400 students. Rural schools' student-teacher ratios are the lowest of all groups of schools.

As Jonathan Sher and other experts on rural education have pointed out, the smaller enrollments create pluses for students, not only in the extra attention students receive, but also in opportunities to actively participate in school affairs. A student not on the playing field probably will be in the stands performing with the band.

Parents and other community members often consider the schools to be their social centers, creating strong bonds among students, teachers, and administrators. Such closeness makes it possible for children and youth in rural schools to have an adult with whom they can have a trusting relationship — an often-cited need among urban students.

Rural schools also are the glue that holds rural communities together.

Rural schools also are the glue that holds rural communities together. This largely accounts for fierce community resistance to the closing of low-enrollment schools. Take away a community's school and the heart of community life is cut out; give schools leadership roles in developing broader economic opportunities in communities — as will be described later — and they can create greater vitality and viability for rural life.

Except in the very smallest rural high schools, broad course offerings often are just as accessible in rural schools as in larger, metropolitan schools. Furthermore, rural settings can provide cooperative and experiential learning opportunities not easily available in other school settings. For example, a biology laboratory held at the pond down the road or work apprenticeships with local businesses can be natural resources in rural areas.

Many of the most desirable elements of current school reforms and restructuring are especially suitable to rural schools. Site-based management is a mainstay of school organization in rural areas. Both principals and teachers in rural schools indicate in surveys that they believe they are considerably involved in making decisions about such areas as curriculum, discipline, and use of time.

Rural schools are at the forefront of integrating advanced learning technologies with telecommunications, thereby reducing the isolation of their students and providing wider access to curriculum offerings. While urban schools seek to reorganize students and teachers into smaller groups, rural schools already have this advantage.

However...

In many places, rural schools are changing because of the continued migration of families to urban areas, or the encroachment of new problems and demands upon rural schools by metropolitan-area sprawl. These schools struggle either with decline and, in other instances, with newly arrived contemporary problems. Drug abuse and alcoholism among rural students, for example, are approaching rates in large cities.

Economic stress in rural areas is particularly difficult, reducing support for school programs and employment options that might prevent further migration. School facilities in rural areas are in distressing condition, with 50 percent of current buildings estimated to be sub-standard. (At the extreme, a survey by the Pacific Region Educational Laboratory in Honolulu, Hawaii, found that, in the Pacific islands it serves, 161 island schools had no water, 218 had no electricity, and 136 islands had no secondary school.)

Administrators report problems with recruiting teachers, and teachers often cite their lack of collegial contact and opportunities for professional growth as reasons for leaving rural areas. This kind of professional isolation can limit their access to new ideas and training — something that could help them not only keep up with their nonrural colleagues, but excel.

Teacher training institutions also neglect the special needs of rural teachers; few have programs directed at preparing teachers for the challenges of rural schools.

As school reform and improvement efforts sweep across policymaking levels, rural schools are being pushed to even greater disadvantage. Federal and state regulations often fail to take into account the special circumstances of rural schools that make meeting minimum requirements difficult for them.

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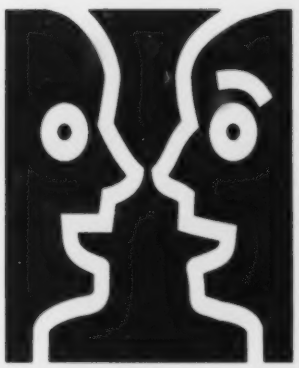
Of the 140 elementary and secondary school programs in the U.S. Department of Education, only a dozen specifically target some or all of their funding to rural schools. State policies tend to focus on reorganization, especially reducing the number of rural districts and supporting the remaining ones through state intermediate units.

In addition, state mandates on alternative assessment, curriculum frameworks, and restructuring have left rural educators scrambling for the time and resources with which to respond to the new requirements. For example, administrators in rural schools rarely have all the support personnel required to handle the paperwork that new mandates generate.

As one regional administrator describes the rural education dilemma:

> **There is no lack of dedication and motivation among rural teachers and administrators; there is a lack of time, money and in some cases, skills. There is not enough time in the average rural educator's schedule to plan and develop new programs. There is no time to learn about new educational approaches and no one to cover classes should the time become available. There is no money in the rural school budget to hire top-notch staff to develop and carry out high-calibre student programs. There is not enough money to train existing staff either, or even to free them to take advantage of low-cost inservice training opportunities. And money, by itself, will not answer the problem. Rural schools cannot hire and retain staff as easily as schools in other locations. They are far from available labor pools and support systems. They pay less and offer fewer benefits.**

Rural educators are working very hard to be among the best. As new expectations for the public school system call for even higher standards, rural schools have even greater needs for support, guidance, collaboration, and leadership so they can do their part in school reform.



Becoming More Visible to Policymakers And to Each Other

With a federal mandate to provide greater services to rural schools, one of the challenges of the regional educational laboratories was to raise consciousness among policymakers about the role and the needs of rural schools. Furthermore, rural educators themselves wanted to connect with each other better, not only to share but also to participate in policy development.

Across the country, the laboratories became effective conveners of various interests and individuals concerned with rural education. Because they are politically "neutral," laboratories are recognized as places where community and state education leaders can get help without being overwhelmed by particular agendas.

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Using R&D Information

At The Regional Laboratory for Educational Improvement of the Northeast and Islands located in Andover, Massachusetts, such collaboration built upon existing networks. The laboratory's Rural, Small Schools Network expanded from 400 to over 700 member-school districts and agencies, and provided forums, teacher exchanges, and publications.

The Northeast and Islands Laboratory developed profiles of the condition of rural education in each of its nine states and jurisdictions. This strategy, which was used in all of the regional educational laboratories' rural initiatives, provided state legislators and policymakers substantive information on designing strategies for rural education.

Laboratory officials point out that state education reform initiatives often are applied uniformly to all schools, overlooking the particular barriers to change in rural schools -- e.g., their isolation and dwindling resources. The profiles of rural schools in the individual states stimulated forums, meetings, and state-level actions to collect better rural school data. Massachusetts went further and established a Task Force on Rural and Small Schools, which has developed profiles of four different types of rural schools in the state. Both Maine and Vermont produced documents on rural school reform.

If we have learned anything over the last 25 years of school improvement and restructuring, it is that no one level or sector of the educational system has the answer. In an increasingly interdependent world, we must get past top-down and/or adversarial relationships to work together and literally design the system around enhanced student learning. In the Rural, Small Schools Demonstration Project, school-based educators and technical assistants worked as partners — and it worked.

Northeast and Islands Laboratory

The Northeast and Islands Laboratory synthesized its observations and experiences into a guide on managing change in rural schools. It told policymakers that:

- No consistent definition that accurately portrays the diversity of rural schools currently exists, a condition that indirectly affects the development, implementation, administration, and evaluation of educational policy — from local to national levels.

- Small and rural schools in the Northeast and Islands must respond to many of the same mandates as their larger urban counterparts, often resulting in significant problems for school personnel (too many jobs for too few people), the community (tax burdens), and students (lack of equitable access to quality education).

- Policy issues at the state level are often more general in focus than those experienced at the local level, and no mechanism currently exists to synchronize the two perspectives.

- Most state education agencies do not have a consistent, centralized, streamlined method of collecting education-related data.

- There are few mechanisms currently in place at state or local levels to efficiently manage and apply demographic and/or education-related data for policy or program change.

As these findings imply, concentrated efforts to understand the problems and to develop a database on rural schools have uncovered policy issues that are important not only to rural schools, but to all schools within a state.

At the Far West Laboratory, staff developed state profiles on rural education as the basis for understanding such policy issues. In addition, the laboratory has assigned state liaisons to monitor state policy developments, to prepare research and policy briefs for state policymakers, and to work through the legislative analyst offices to provide testimony on what research has to say about specific policy issues.

Research for Better Schools, the regional educational laboratory in Philadelphia, Pennsylvania, formed Rural Assistance Councils in each of the states it serves. The councils consist of state and local leadership and act as catalysts for rural education improvement. They became a major means of bringing together key agencies in each state to create rural partnerships.

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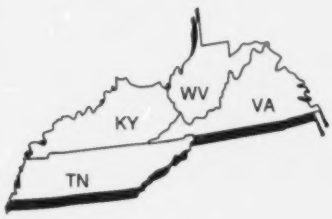
The Councils identify and bring rural needs to the attention of policymakers and develop statewide plans for improving rural schools. They also sponsor seminars, forums, and research reports, never shying away from tough issues, such as the pros and cons of further school consolidation.

New Jersey's Rural Assistance Council is collaborating with several local communities to involve students in community service and to foster interagency collaboration.

Appalachia Educational Laboratory

Appalachia Educational Laboratory (AEL) serves Kentucky, Tennessee, Virginia, and West Virginia. The region contains few metropolitan areas, virtually all located on its periphery. The interior remains rural, much of it hilly or mountainous. Communities are small and often isolated from one another by rugged terrain. In West Virginia and eastern Kentucky, mining and timbering are important economic bases. Light manufacturing is a common economic base in western and southern Virginia and in much of rural Tennessee.



The laboratory's key goals include the improvement of professional quality, of curriculum and instruction, of community support, and of opportunity of access to quality education by all children. To achieve these goals in rural schools, AEL operates three distinct rural programs.

- The Rural Excel program works with education faculty, state department of education leaders, and practitioners in local rural schools to identify and test materials and practices likely to improve student performance. These collaborations design, test, redesign, and retest improvement programs and strategies. Projects underway focus on mathematics instruction, early childhood education and parental involvement, and interdisciplinary teamed instruction.

- The Rural, Small Schools program works to link rural communities and educators to the rich storehouse of outside resources. It also disseminates information about what works in rural, small schools. The program helps rural libraries use technology, undertakes special technical assistance projects, and is documenting the implementation of integrated services in West Virginia rural communities.

- The ERIC Clearinghouse on Rural Education and Small Schools processes emerging professional literature on rural and small schools for ERIC, the world's largest electronic database of education-related materials. The clearinghouse also produces a series of practical resources for people concerned with education in rural and small schools, including parents, teachers, policymakers, and researchers.

In addition, AEL's State Policy program is conducting a qualitative, long-term investigation of the implementation of the 1990 Kentucky Education Reform Act in selected rural school districts.

State	Total # of Schools	% Rural Schools	% Rural Students
Kentucky	1,311	40	31
Tennessee	1,478	26	20
Virginia	1,660	34	25
W. Virginia	970	51	43

The SouthEastern Regional Vision for Education in Greensboro, North Carolina, is demonstrating that business partnerships with schools are possible in rural areas. Business leaders in North Carolina, South Carolina, and Georgia are establishing networks of school-business partners. A model has been developed and sites in North Carolina and South Carolina are trying it out.

Supported by good data and collaborative activities, rural education spokespeople can accomplish a lot. For example, the results of a need: assessment by the North Central Regional Educational Laboratory in Oak Brook, Illinois, led to the formation of the Indiana Small Towns and Rural Schools Association. Policy seminars on rural education sponsored by the laboratory paved the way for the creation of a rural education staff position in the Michigan Department of Education. And, with assistance from the laboratory, rural educators prepared information for legislators in Ohio, connected to rural development agencies in Minnesota, and integrated school improvement and technology policies in Illinois.

With almost two-thirds of the school districts in the Southwest region both rural and small, this area was ripe for organizing and collaborating. Statewide issues forums in each of the five states brought policymakers together with educators to make specific plans for school improvement. Today, the Southwest Educational Development Laboratory's Rural, Small Schools Initiative is in touch with more than 4,000 agencies and individuals with interests and responsibilities for rural education.

The Southwest laboratory compiles a rural school database that demonstrates several ways that factual information can be used to help policymakers. The database consolidates and organizes information about resources available, both regionally and nationally. It also includes a reference file of statistics and documents related to rural education laws, policies, and procedures in each state in the region. Staff members respond to requests for information from rural educators and policymakers, and are exploring ways to provide instant access to the database through technology.

SouthEastern Regional Vision for Education ... is demonstrating that business partnerships with schools are possible in rural areas.

Far West Laboratory for Educational Research and Development

Far West Laboratory (FWL) serves the states of California, Arizona, Utah, and Nevada. The region is characterized by a remarkable demographic mix. It includes some of the most metropolitan areas as well as some of the most sparsely populated rural areas in the country. Of the 118 counties in the region, over half occupy two-thirds of the land mass but have only 5 percent of the region's population. While all four states are among the top 10 fastest growing states in the nation in terms of student enrollment, an inordinate percentage of that growth has been among racial and ethnic minority students. Over a quarter of the nation's school-age children who speak a language other than English at home are now concentrated in this region.

Poverty is also on the rise in all four states. During the 1980s, Nevada experienced a 52 percent increase in the number of children living below poverty levels; California's increase was 41 percent; Arizona and Utah's were 28 percent and 23 percent respectively. These demographic and economic changes have had near-crippling effects on rural schools seeking to find qualified teachers, adequate space, and sufficient financial resources to provide a quality education for students.

Far West Laboratory's mission is to help educational organizations and their communities create and sustain improved learning opportunities for children, youth, and adults. Its rural program assists local, intermediary, and state agencies in the region as they provide support to rural school improvements.

Current activities emphasize three thematic areas:

- upgrading teaching in core subject areas;
- helping educators use performance-based assessments; and
- applying technology in instruction and staff development.

State	Total # of Schools	% Rural Schools	% Rural Students
Arizona	973	16	6
California	7,119	10	5
Nevada	313	37	22
Utah	651	27	16

Most of the school systems in the Appalachian Educational Laboratory's region are considered rural. Consequently, much of the laboratory's work has focused on the link between adequate school finance for rural schools and school improvement. The laboratory, located in Charleston, West Virginia, was instrumental in preparing a special issue of *The Journal of School Finance* on rural issues, drawing national attention to the predicament of rural areas in obtaining equitable school funding.

The laboratory also is conducting one of the few long-term research projects that documents the effects of the Kentucky Education Reform Act on selected rural districts. The results will inform policy-makers about how such a massive change in state policy is translated into practice in rural areas.

[Appalachia Educational Laboratory] is conducting one of the few long-term research projects that document the effects of the Kentucky Education Reform Act on selected rural districts.

Taking advantage of the interest that Idaho's political and business leadership showed in improving the quality of education in small, rural schools, the Northwest Regional Educational Laboratory shared with these groups models that it had developed for successful schools. These models demonstrate ways schools and communities can come to a consensus about the kind of education they want for their children and how to achieve it. First the Idaho Department of Education was involved, then the Idaho Business Roundtable, and eventually members of the state's legislative education subcommittees. As a result, the Idaho legislature sponsored a school improvement initiative for all schools. The successful schools models also spurred grant programs for small schools in Oregon and Washington state.

Approximately 95 percent of the schools in the vast network of islands served by the Pacific Region Educational Laboratory are rural, and most are very isolated. Developing policy for these far-flung schools is being aided by the laboratory's R&D Cadre. Composed of practitioner-researchers from each of the 10 departments of education in the region, private schools and higher education, the Cadre plans, designs, and conducts the region-wide research agenda on issues such as preparing teachers to work with at-risk youth, providing all students with equitable access to learning, and creating effective partnerships between the home and the school. Local task forces are in charge of actually conducting the studies, thus building their capacity to analyze and use research data.

Making Education a Community Linchpin

With higher expectations but diminishing resources for rural schools, community involvement often must go beyond traditional ties. In the process, communities change just as schools change. Better education can be a linchpin for community economic development.

The Appalachia Educational Laboratory demonstrated the School-Community Improvement Process in at least one county in each of the four states in its region. The process showed school and community leadership that they could work together on difficult problems such as building consensus on educational goals.

We work directly with individual schools by providing training and technical assistance. The services vary according to the specific needs of the school. We do not take a 'choose from the menu' approach in providing services. Schools assess their own school improvement plans and ask for help when they see a need. In this way, we fit into the larger context of a school's plan as opposed to a 'hit and run' type of service. Using this approach, we are providing training in areas such as classroom assessment, curriculum alignment, lateral thinking, and coping with change.

Pacific Region Educational Laboratory

In one community, there was considerable division over the issue of new school facilities. The School-Community Improvement Process produced a consensus, and enabled the construction of a new middle school designed around a specific philosophy for educating young adolescents. Eight contiguous school districts in another state used the process to develop a collaborative public communications plan. They also involved the Tennessee Valley Authority and a higher education institution.

Working together on school-related issues, community leaders learned skills they could transfer to other organizations and projects in their areas. In one state, a coalition of more than 40 rural service agencies formed from a recognized need for interagency collaboration in rural areas.

Rural Audio Journal is a series of educational "magazines" on cassette tape that showcases rural schools and communities that are carrying out

innovative, effective educational practices. Produced by the North Central Regional Educational Laboratory, the premier issue of the *Rural Audio Journal* was about school-based enterprises. These are programs in which students research, plan, set up, operate, and actually own economically viable small businesses in cooperation with the local school. On the tape, listeners hear about an exemplary school-based enterprise in rural Rothsay, Minnesota.

The Rural Schools and Community Development project, fostered by the Mid-continent Regional Educational Laboratory, started in six South Dakota sites. This project helped communities re-examine the mission of the schools to include community development, increased experiential learning, helped teachers redesign their strategies to use the community as a focus of study, created opportunities for students to serve their communities, and encouraged entrepreneurial study and projects that might make it possible for students to stay in their communities after graduation. Intermediate service agencies used this model to encourage school-community development links across the region. North Dakota has adopted this project as well.

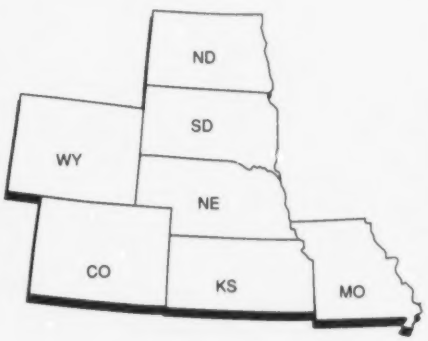
[Mid-continent Regional Educational Laboratory] has encouraged districts to develop a "cluster" strategy whereby neighboring districts share personnel and other expenses.

In addition, the Mid-continent laboratory is helping North Dakota educators deal with problems created by having a large number of school districts for relatively few students (280 school districts for 110,000 students). For a number of years, this laboratory has encouraged districts to use a "cluster" strategy whereby neighboring districts share personnel and other expenses. The laboratory staff further helped develop clustering as a legislative concept. At present, the state provides incentive money to clusters of districts to work together; at the end of three years, the issue of boundary restructuring is to be brought to the voters of the participating communities. If they approve a new plan, the state will provide incentives for an additional two years.

These efforts at policymaking for rural schools and community development underscore the systemic needs of rural schools. They cross agencies, levels, and interests. Individually, rural schools can't always do what they want to do for their students, teachers, and communities. Brought together and encouraged to work on problems and issues with policymakers, they can make a major contribution.

Mid-continent Regional Educational Laboratory

The Mid-continent Regional Educational Laboratory (McREL) serves seven states in the Upper-midwest: Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming. Over 50 percent of the school districts in this region enroll fewer than 250 students. Over 80 percent of the districts enroll fewer than 1,000 students. The economy, which relies primarily on agriculture, mining, and timber, is depressed. A growing number of schools and communities are struggling to survive.



McREL's rural education program creates local capacity to address problems facing rural schools and communities. Clusters of rural schools work collaboratively with institutions of higher education, state education agencies, and McREL to devise curriculum and delivery systems suited to the rural environment. Specific strategies have included:

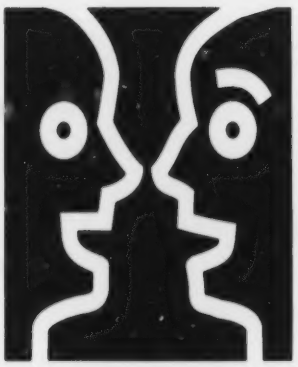
- Computer consortia that provide ongoing staff development in the use of computers for classroom instruction, accessing databases for student research, and networking teachers for exchange of information.

- Distance learning consortia using a range of technology (e.g., audiographic, satellite, and fiber optic interactive television systems) to provide courses in advanced math, science, foreign language, and other specialized subjects.

- Redesigning rural schools to become central players in community development, with the aim of allowing students to create their own jobs and the option of remaining in rural communities if they choose.

- Working with teachers and administrators to design curriculum and organizational structures that will allow rural schools to operate more efficiently, thus sustaining their existence and preventing the need for further school consolidation.

State	Total # of Schools	% Rural Schools	% Rural Students
Colorado	1,277	30	14
Kansas	1,454	68	53
Missouri	2,011	41	26
Nebraska	1,464	60	34
N. Dakota	635	75	44
S. Dakota	769	76	50
Wyoming	397	45	20



Capacity Building In Rural Schools

Teaching in rural schools is a special experience. About one-fourth of the nation's teachers work in rural schools. They tend to be younger, less experienced, hold fewer advanced degrees, and certainly are not as well-paid as teachers in nonrural areas (about $1,600 less for a beginning teacher). Often times, teachers grew up in the communities in which they teach. Teachers are hard to recruit, but, surprisingly, no more so than in nonrural areas.

Once on board, teachers in rural areas work under several disadvantages. They may have fewer students, but they have more preparations each day. Almost one-fifth report not being prepared or certified to teach one or more of their courses; the percentage is one-fourth or more unprepared in the sciences and special education. They often work in isolation, and new teachers receive much less professional support than new teachers in nonrural areas.

Almost half of rural school principals also teach at least one-third of the day.

Principals in rural areas also tend to be younger, less experienced, and less well-paid than those in nonrural areas. They want to be instructional leaders, but many of them must also perform an array of tasks that in larger districts would be done by specialized staff. Almost half of rural school principals also teach at least one-third of the day.

Demands for school reform are rising. At the same time, policymakers are learning that significant change in public education requires sophisticated skills and deeper knowledge of subject-matter content, as well as an

North Central Regional Educational Laboratory

The North Central Regional Educational Laboratory (NCREL) serves seven states: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin. This region is America's heartland. Its fertile soil contributed to America's reputation as breadbasket of the world, and its strategic location, vast natural resources, and mammoth manufacturing capacity made the region pre-eminent in the nation's economy during the industrial era. The people represent a rich heterogeneity of cultural, racial, and ethnic groups.

The region is overwhelmingly rural and includes more than 2,500 rural districts, or about 17 percent of all rural districts in the nation. These districts vary in size, student population, and remoteness.

The challenges to rural schools that come from the unique mixture of isolation and poverty lead NCREL's Rural Education Program to four broad goals. These are:

- To help rural schools gain access to innovative improvement practices and approaches in curriculum, instruction, and assessment; professional development and inservice; and organization and management.
- To help rural schools create or join support networks and partnerships that enable them to obtain low-cost assistance in experimenting with innovative practices and approaches.
- To help rural schools experiment with innovative practices and approaches while developing the capacity to sustain the ones that prove viable.
- To contribute to the pool of innovative practices and approaches by documenting rural schools' experiments with these practices and approaches and drawing conclusions from their experiences.

State	Total # of Schools	% Rural Schools	% Rural Students
Illinois	3,915	25	12
Indiana	1,825	25	19
Iowa	1,578	50	32
Ohio	3,579	28	22
Michigan	3,179	20	15
Minnesota	1,460	48	31
Wisconsin	1,983	39	25

understanding of how to harness advanced learning technologies. So, it is not surprising that rural educators told the regional educational laboratories they needed help in developing their schools' teaching and administrative talent. Less well-educated than their colleagues elsewhere, on the average, and isolated from quality professional growth opportunities, rural educators are being asked to do more — with less access to the means to do it.

Putting Staff Development into the Research Loop

The Regional Laboratory for Educational Improvement of the Northeast and Islands capitalized on existing teacher talents to promote quality teaching. Its Teacher Recognition Program awards $500 honoraria to a half-dozen rural teachers a year, selected for their skills and leadership in particular areas (e.g., thinking and reasoning skills or teaching multi-level, multi-ability groups). These teachers are "Laboratory Fellows." They are featured in an annual issue of the *Outstanding Teaching Practices Series* published by the laboratory. They also lead forums and conferences at which other practitioners exchange their most promising ideas and practices.

The Regional Laboratory for Educational Improvement of the Northeast and Islands capitalized on existing teacher talents to promote quality teaching.

For Mississippi's school administrators and school board members to know how to better support the state's education reform plan, the SouthEastern Regional Vision for Education has contracted with the Mississippi Education Forum to develop materials and procedures for training these leaders in reform efforts. The project is guided by a statewide steering committee. It began with materials development; the next step is to train administrators and board members with the new resources. Approximately 46 percent of Mississippi's school districts are rural.

In a particularly unique project to instill up-to-date administrative skills in school management, the Southeastern laboratory is working with two school districts on applying the concepts of the "Deming Approach" to school improvement. W. Edward Deming's Total Quality Management ideas, with school-based decision making focused on higher student achievement, are being carried out by Continuous Quality Improvement

teams, consisting of a principal and four to six classroom teachers. The results of the demonstration will be shared throughout the region.

Responding to strong interest in this area, the laboratory is engaging the services of Westat, Inc., a professional services organization, to work with four additional school districts in the Southeastern region to design and develop a total quality management training approach.

The Far West Laboratory has collaborated with the Arizona State Department of Education to help rural districts comply with the spirit and letter of new statewide performance-based assessments. These require students to exhibit higher-order and integrated subject-matter skills. They emphasize problem solving rather than simple recall of facts and figures. While urban and suburban schools have test and measurement staff to implement the new assessments, rural schools typically do not. The job is just added to the duties of already over-burdened school administrators. To help rural schools plan and implement these new assessments, the laboratory is developing staff development and descriptive materials about alternative assessments. The state department of education is distributing these materials to all districts.

The North Central Regional Educational Laboratory combined technology with personal contact to train rural teachers as researchers. Rural high school English teachers from five states in the region used computer conferencing and face-to-face meetings to support each other in their development as teacher-researchers. As a result, teachers felt less isolated and began to seek each others' help on a whole variety of instructional matters. The project also involved the Bread Loaf School of English at Middlebury College and Unison Telecommunications, Inc.

... the North Central laboratory and the Public Broadcasting Service sponsored a series of nine interactive video teleconferences on school restructuring.

In another staff development project that reached across the country, to nonrural educators as well as to those in rural schools, the North Central laboratory and the Public Broadcasting Service sponsored a series of nine interactive video teleconferences on school restructuring.

Each telecast focused on a specific issue, e.g., higher-order thinking, collaborative classrooms, new assessment strategies, or working with at-risk students. Telecasts were accompanied by guidebooks and school-based

The Regional Laboratory for Educational Improvement of the Northeast and Islands

The Regional Laboratory for Educational Improvement of the Northeast and Islands (NE&I) serves Connecticut, Maine, Massachusetts, New Hampshire, New York, Puerto Rico, Rhode Island, Vermont, and the Virgin Islands. More than half the region's school districts are classified as small and rural.

The Northeast and Islands region has been a showcase of innovative educational reform. However, the economic recession that is currently enveloping the region is taking a massive toll on education and is likely to continue to negatively affect education in the years ahead.

Three interrelated initiatives constitute the core of the laboratory's work: Designing Schools for Enhanced Learning, the Regional Policy Initiative, and School Improvement Services. Work specifically targeted to rural schools is woven through each of these efforts. These initiatives also encompass the laboratory's work with rural communities and schools.

•Puerto Rico
•Virgin Islands

- Designing Schools for Enhanced Learning features technical assistance, action research, and networking services to schools throughout the region through a regional consortium.
- The Regional Policy Initiative involves a wide range of efforts targeted at refining educational policies in the states of the region.
- School Improvement Services are geared to helping states and school districts develop, implement, and evaluate statewide restructuring initiatives.

State	Total # of Schools	% Rural Schools	% Rural Students
Connecticut	926	5	4
Maine	714	43	28
Massachusetts	1,747	6	4
New Hampshire	444	34	18
New York	3,884	14	9
Puerto Rico	17,000	59	39
Rhode Island	285	4	4
Vermont	334	52	31
Virgin Islands	34	100	100

workshops. Another follow-up activity focused on increasing and improving staff development activities on restructuring in clusters of rural schools in each state.

Other regional laboratories also focused their staff development activities on improving the teaching of critical thinking. In the Southwest, for example, more than 70 staff developers were trained to help teachers encourage critical thinking; in turn, more than 1,000 teachers received training. This effort led to the identification of a more fundamental need: training in how to design staff development programs.

In response to this need, laboratory staff prepared a training package for school leadership teams to use in planning, documenting, and implementing school improvement through a systematic staff development process. The package addresses staff development from the rural school perspective and helps school leadership teams build on the advantages of small schools, such as flexibility and close community ties. It also helps them identify barriers, such as isolation and limited resources. An accompanying videotape featuring rural, small schools across the Southwest shows how carefully planned staff development brought about school improvement.

No matter how rural or small a school may be, a systematic approach to staff development can bring about school improvement and change.

Southwest Educational Development Laboratory

In the Northwest, school improvement is a process that involves all staff and all students, not just individual teachers or classrooms. Staff development took the form of school-level teams learning how to use research-based knowledge on school improvement.

The Northwest Successful Schools model, originally applied in nonrural schools, was adapted to rural settings. Its use spread throughout the region as the laboratory strived to develop the capacity of rural school improvement organizations. The Montana School Improvement Group was formed through the efforts of Montana State University and interested rural educators. The pre-existing League of Schools in southeastern Idaho provided a second set of pilot schools for the school improvement

process. The Clearwater Staff Development Consortia in Idaho, consisting of school districts in the Lewiston area, also provided pilot sites for the second phase.

In tackling the Successful Schools model, rural school leaders built upon their strengths. Small rural communities, laboratory staff point out, revere the social, emotional, and intellectual values of their schools. Therefore, staff development in the successful schools model was modified for its rural audience to consider "all purposes of schooling in the improvement process by all members of the school's community — staff, parents, administrators, and board members as equal partners."

Northwest Regional Educational Laboratory

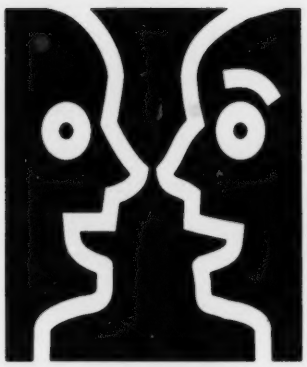
Northwest Regional Educational Laboratory (NWREL) serves Alaska, Idaho, Montana, Oregon, and Washington. Three-fourths of the school districts in this region are rural, located in communities that are economically dependent on agriculture, forest products, fisheries, mining, and tourism.

Educational quality, equity, and access among small, rural schools is reflected in each of NWREL's seven goals — improving learning outcomes, enhancing the education professions, achieving equity, assessing diversity, improving public finance, serving distressed schools, and strengthening community support for children and schools. In accomplishing these goals, the special concerns of rural educators are integrated into all of the laboratory's programs, such as technology, school improvement, and Indian education.

Specifically, the laboratory's Rural Education Program is working on five activities:

- Research and Development Access to Rural Schools strives to improve use of research information by practitioners in small, rural schools.
- Successful Schools provides very small, rural single-building districts with a strategic planning process.
- Rural Curriculum Support explores various strategies that small schools can use in curriculum renewal.
- Rural Community Development designs ways to strengthen linkages between small schools and rural communities to achieve economic, social, and environmental resiliency.
- Distance Education and Telecommunications offers assistance to rural school districts and distance education providers as they plan, design, select, and implement distance education options.

State	Total # of Schools	% Rural Schools	% Rural Students
Alaska	452	70	37
Idaho	539	49	30
Montana	758	68	35
Oregon	1,169	18	8
Washington	1,626	27	16



Connecting To the Classroom

Ultimately, all school improvement finds its voice in the classroom and its evidence in higher student achievement and engagement.

Small, rural high schools find it difficult to offer not only advanced courses and electives, but sometimes also the basic courses required in their states. When compared with urban high schools, the differences are most acute in foreign languages and advanced placement courses.

Moreover, rural schools have expanded their curricula in recent years by using satellite-transmitted instruction. In fact, they are the leaders among all school groups in exploring the uses of satellite and other distance education technology.

> ***[Rural schools] are the leaders among all school groups in exploring the uses of satellite and other distance education technology.***

Still, as more and more emphasis is put upon advanced-level content, teachers and administrators in rural schools are hard-pressed to keep up. Many rural teachers, for example, are teaching out of their field. This means that they are unprepared to handle greater depth in subject-area content. Rural teachers have more preparations and less time to undertake curriculum revisions on their own. Great distances may limit their access to research-based university campuses.

The statistics also make it quite evident that many of the problems weighing down urban schools, such as discipline actions and family stress, are now becoming part of the rural scene. Rural schools provide

support for troubled students almost single handedly. Outside counseling and social services are often non-existent locally.

Rural schools may have fallen further behind on these challenges — higher-level content for students and more support for rural students — without renewed attention to rural agendas. The regional educational laboratories provide exposure to ideas and people across states, develop networks, acquaint policymakers about rural realities, and offer follow-up training and technical assistance once teachers and administrators decide on what they need to do. They are able to foster changes in curriculum and student support without burdening the projects and ideas with a bureaucratic environment.

Extending the Curriculum

The Far West Laboratory has organized a pilot demonstration project with four rural districts, the Southeast Utah Regional Service Center, and the Utah State Office of Education to train rural teachers to improve science instruction. The project is based on state-of-the-art knowledge about interdisciplinary teaching. Instead of presenting science as an isolated discipline, the project is training rural teachers to integrate science instruction within the context of daily life and with the teaching of math, reading, and other subject areas. Teachers also are learning to develop new assessment strategies to fit with their instruction.

The Far West Laboratory ... organized a pilot demonstration project ... to train rural teachers to improve science instruction.

The SouthEastern Regional Vision for Education's initial focus on improving mathematics and science achievement illustrates the process and consensus-building strengths of the regional educational laboratories.

The laboratory hosted five targeted conferences for innovators and policymakers to get its rural program started. These were followed with a second round of meetings focused on developing recommendations to the laboratory.

A few months later another conference narrowed the discussion to state school improvement initiatives and the development of networks to

Pacific Region Educational Laboratory

The Pacific Region Educational Laboratory (PREL) serves American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, Guam, Hawaii, the Republic of the Marshall Islands, and the Republic of Palau. The dominant characteristic of the Pacific region is the vast ocean that separates the islands from the continental U.S. and from each other.

A second characteristic is its heavily rural nature. Approximately 95 percent of the schools and 83 percent of the children are in rural settings.

- American Samoa
- Commonwealth of the Northern Mariana Islands
- Federated States of Micronesia Kosrae,Pohnpei,Chuuk and Yap
- Guam
- Republic of the Marshall Islands
- Republic of Palau

Distances, rurality, and rich multicultural constituents dictate an emphasis on collaboration and interaction. PREL believes that sustained educational improvement must rely on local expertise rather than outside assistance, that doing work for someone rather than with them yields no lasting change, and that appropriate service responds to local priorities. Collaborative activities include:

- Co-sponsorship of the Annual PREL Conference, often the only professional conference that Pacific educators attend.
- Support of a regional R&D Cadre with representatives from each jurisdiction to plan and conduct a research agenda of common interest across the region. Action research issues being addressed include equitable access to education, the nature and needs of Pacific at-risk youth, finance and facilities, and home and school learning styles.
- Training trainers for Pacific Effective Schools; bringing trainers from throughout the region together in a school improvement process adapted to local conditions.

Jurisdiction	Total # of Schools	% Rural Schools	% Rural Students
American Samoa	33	100	100
Commonwealth of the Northern Marianas	14	100	100
Federated States of Micronesia	75	100	100
Guam	35	100	100
Hawaii	231	18	15
Republic of Palau	25	100	100
Republic of the Marshall Islands	78	100	100

improve science and math teaching and learning. Additional meetings have strengthened the networks, providing a support system for local efforts.

Rural educators in southern Virginia believed they were hampered by inadequate library resources, both for students and for staff. The Appalachia Educational Laboratory boosted the efforts of the Southside Virginia Library Network by helping to bring quality library resources to rural schools. Its rural program staff arranged for school faculties to be specially trained in using a CD-ROM version of the ERIC database on rural education and small schools. The increased use of the ERIC system by both teachers and students convinced publishers to reduce their fees for the service nationwide.

This effort led to the beginning of another library network in West Virginia. The laboratory has now documented the process and has developed guidelines to help others establish such networks for their schools.

The Rural Small Schools program staff have collected several ideas for using the expanded library resources for improving curriculum and instruction. For example, one district identified six teachers interested in cooperative learning. District officials designed a program in which these teachers were to search the ERIC database for documents and journal articles related to the topic. If they critiqued eight articles, tried new ideas in their classroom, and prepared a final report of their experiences, they would be granted continuing education credits that could be used for recertification.

Appalachia Educational Laboratory

Seventeen rural districts in central Wisconsin demonstrated that technology supported staff development can significantly increase teacher's knowledge about how to deepen curriculum content. The Wisconsin Rural Reading Improvement Project (WRRIP), part of the North Central Regional Educational Laboratory's rural initiative, is an award-winning project, thoroughly evaluated by independent experts.

Instead of one-shot, one-dimensional views of curriculum change, the WRRIP treats "human and organizational change as a long-term,

evolutionary process." It presents the teaching of reading as "thinking," grounded in the research that shows reading to be a "goal-directed" and "strategic" process of making meaning.

WRRIP used activities broadcast over television and radio, telephone and computer conferences, and two-way narrowcast television. It began by building teams of elementary principals, reading specialists, and library-media specialists, along with a cadre of teachers from each district. In the second year, more teachers became part of the network, and staff development was customized to individual schools. By the third year of the project, schools were implementing plans to institutionalize this change process.

The third-party evaluation process showed that this approach and content were highly successful. As one principal noted, "teachers are becoming better teachers. They think differently, they are more aware of the teaching process."

Students in [WRRIP] scored significantly higher than those in comparison districts.

The evaluation documented important improvements in teachers' classroom strategies as well. Students in the program scored significantly higher than those in comparison districts. Further, district policies changed, becoming more open to new ideas and demanding greater teacher competence.

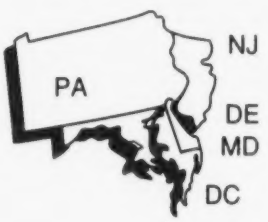
The developers attribute the project's success largely to the fact that it responded to rural school conditions. Each district decided on its team members, each developed its own staff development plans. But the various components — research, technical assistance, evaluation — could not have been pulled together by the districts alone.

The project has now gone national as one of the validated programs of the U.S. Department of Education's National Diffusion Network.

The regional laboratory itself has fostered a similar strategic reading inservice process in 17 districts in six other states — Indiana, Michigan, Iowa, Ohio, Illinois, and Minnesota. Each district has become part of a Rural Schools Action Project network. The original pilot sites are providing technical assistance to the new network members via computer, telephone, and print media. The laboratory is testing this innovative, at-a-distance technical assistance approach as a potential answer to the isolation-from-quality-inservice problem confronting so many rural schools.

Research for Better Schools

Rural schools are abundant in Delaware, Maryland, New Jersey, and Pennsylvania. These four states are served by Research for Better Schools (RBS), the mid-Atlantic regional educational laboratory. In fact, almost one-fifth of this region's schools are rural. These schools enroll almost half a million students.



RBS provides R&D knowledge and strategies to educators who are trying to achieve educational excellence and equity. Its work in rural education has the following goals. The first is to increase rural schools' capacity for reform. Working with Rural Assistance Councils in each state that it serves, RBS helps state agencies, rural associations, business and industry, and rural schools plan and implement school improvement and restructuring efforts.

RBS' second objective in rural education is to enhance communication of information about the characteristics, capabilities, and needs of rural schools in the mid-Atlantic region. Third, RBS works directly with rural school educators to design, implement, and evaluate restructuring programs.

Under this broad umbrella, the Rural Education Project at RBS engages in the following activities:

- Developing a database on rural schools, analyzing data, and reporting data and other information to educators, legislators, and the general public;
- Developing rural school restructuring guidelines, frameworks, models, and other materials;
- Disseminating information about promising programs to rural educators;
- Designing rural school and community economic development programs.

State	Total # of Schools	% Rural Schools	% Rural Students
Delaware	145	36	32
Maryland	1,146	17	14
New Jersey	2,143	7	6
Pennsylvania	3,116	20	16

An oft-mentioned advantage of rural schools is their potential to enhance biological sciences curricula. Rural students live in the midst of great laboratories. The Southwest Educational Development Laboratory has helped a small project in New Mexico achieve national recognition and status using what many rural schools treat as an undeveloped resource.

Strengthening Science Partnerships in Rural, Small Schools (SSPRSS) is conducted by the Southwest laboratory, in partnership with the New Mexico Museum of Natural History in Albuquerque and the Center for Rural Education at New Mexico State University/Las Cruces. Together the partners are disseminating a curriculum enrichment process that uses the local landscape — plants, animals, woods, ponds, mountains, fault lines and fossils, as well as community organizations, businesses, and individuals to assist in teaching science.

[SSPRSS] was identified as a "promising practice" when the regional laboratory began its rural initiative, and is now stimulating similar programs nationwide.

This science project was identified as a "promising practice" when the regional laboratory began its rural initiative. It's now stimulating similar programs nationwide. Educators, museum staff, and higher education faculty from throughout the country have attended workshops and received assistance in adapting the project to their states and communities. In this instance, a curriculum developed locally by rural educators is leading the way.

In another effort to improve science instruction in rural areas, the Far West Laboratory negotiated to have rural teachers be "first in the change pipeline instead of receiving help last because of their geographic isolation and size." Rural educators are now centrally included in the California Science Implementation Network, made up of staff developers and mentor teachers who help elementary teachers with science instruction.

This laboratory also developed, in collaboration with the Nevada State Department of Education, an arts and humanities project for that state's rural schools. It recruited rural teachers for a series of workshops, organized higher education and other resources around a support network, and became a catalyst for a new consortium formed around integrating the arts and humanities into the curriculum.

Research for Better Schools is using its expertise on higher-order thinking skills to bring this research and practice to rural schools. It is helping

rural districts in Pennsylvania and Delaware plan and implement restructuring based on creating higher-order thinking environments for rural students. This work will culminate in case studies on what works well in rural settings.

Focusing on the challenge of improving mathematics instruction in the rural schools of Appalachia, the Appalachia Educational Laboratory, in cooperation with the Center of Excellence at the University of Tennessee at Martin, is field testing a series of Mathematics Activities Manuals with 21 rural schools across the state. The activities promote the standards developed by the National Council of Teachers of Mathematics. The study is gathering data that include not only student achievement but also changes in students' attitudes and opinions regarding mathematics as a result of the project.

Expanding Student Support and Parent Involvement

Regional laboratories also help with direct student services. An example is Project ACCESS at the Mid-continent Regional Educational Laboratory. Aware of the trauma facing rural students who are confronted with dwindling opportunities to "stay on the farm," the regional laboratory worked with local teachers and counselors on a special program to encourage students to explore other career options.

Aware of the trauma facing rural students who are confronted with dwindling opportunities to "stay on the farm," the [Mid-continent] regional laboratory worked with local teachers and counselors on a special program to encourage students to explore other career options.

Project ACCESS grew out of the farm crisis of the mid-1980s and provided long-term support for student choices. Designed for rural areas in upper Missouri, Project ACCESS first conducted a series of community forums that presented national, state, and local trends. The purpose was to help community leadership and potential partners, such as regional higher education institutions and community developers, discuss issues together.

SouthEastern Regional Vision for Education

The SouthEastern Regional Vision for Education (SERVE) assists state and local efforts to improve education in the six southeastern states of Alabama, Florida, Georgia, Mississippi, North Carolina, and South Carolina.

The Southeastern region has the greatest percentage of rural students in any region in the continental U.S. Of the 768 school districts in the region, 498 are more than 50 percent rural in composition. Consequently, the laboratory's rural initiatives are integrated with its total program.

The laboratory's activities include a variety of applied research and development projects. SERVE is examining the effects of incentive programs on reducing dropout rates, workforce preparedness, site-based accountability models, and model school and school improvement planning procedures. Its services include producing and disseminating usable research, publicizing exemplary local, state, and regional educational programs, and analyzing key issues to share information and improve educational policy and legislation. Its on-line electronic information system reaches teachers across the country.

Among SERVE's projects in rural education are:

- Improving compensatory and remedial education in rural schools that are field testing major research findings;
- Developing and field testing a rural school/business partnership model and network;
- Studying state level policy, regulatory, and statutory barriers to school restructuring, and successful intervention strategies, with a special emphasis on rural school systems; and
- Assessing the effects of a regional telecommunications approach to initiating educational change in rural schools.

State	Total # of Schools	% Rural Schools	% Rural Students
Alabama	1,278	29	25
Florida	2,129	10	7
Georgia	1,712	21	17
Mississippi	858	42	39
N. Carolina	1,904	35	29
S. Carolina	1,019	29	22

A second series of seminars focused on high school counselors, updating their knowledge about career trends and providing them with other information about the region. Summer campus-based programs encouraged participating students to set their sights beyond high school graduation. In addition, more than 50 mentors gave on-going support to students who continued on to postsecondary education. Not only did ACCESS bring communities and schools closer together, but it also marshaled agency and campus resources to support them.

In the Northwest, "rural" often refers to Native American populations doubly isolated by distance and the insularity of life on reservations. The Northwest Regional Educational Laboratory has several initiatives to help Native American students and their families.

Knowing that schools were anxious to improve relations with families, the laboratory searched the literature on the involvement of Native American parents in school and surveyed almost 400 administrators in the region to identify promising practices in parent and community involvement.

A second survey contacted about 2,000 Native American parents. As a start on using research for school improvement, the laboratory conducted training programs in several schools to increase parent involvement and student self-esteem. Staff also participated in week-long teacher institutes so that teachers from throughout the Northwest could explore effective educational practices for Native American students.

Another student-focused support effort of the Northwest laboratory is its Rural Comprehensive School Health Education Project. This pilot program in the laboratory's five-state region seeks partnerships between small, rural schools and other organizations to achieve the Surgeon General's health goals.

Northwest Regional Educational Laboratory has several initiatives to help Native American students and their families.

The programs developed in this project have become models that demonstrate what a comprehensive health education curriculum framework looks like and how it operates in practice. Moreover, they prove that rural, small schools can indeed implement such programs.

For families and young children in Hawaii and the Pacific islands, school readiness depends largely on an understanding of what the Pacific Region

Educational Laboratory terms "home/school learning styles." For ethnic minority students, the transition from home to school often is a critical period of discontinuity. The laboratory is attempting to bring homes, schools, and communities together by identifying "home learning styles" and developing pilot programs to translate these styles into instructional and organizational strategies for schools.

School readiness depends on parents in other ways as well. Research findings indicate that virtually all parents want to help with their children's early learning, but many do not know what to do.

The Appalachia Educational Laboratory's Rural Excel program has produced research-based, field-tested materials to help parents fulfill their role as first teacher. Thirty easy-to-read weekly guides, called *Family Connections*, provide parents of preschool children with in-home, read-aloud selections; developmentally appropriate activities to do with their children; and messages about parenting concerns. The colorful guides are written at the fifth grade or lower reading level and are illustrated with original art. Their low cost makes them affordable to virtually all preschool programs.

The Appalachia Educational Laboratory's Rural Excel program has produced research-based, field-tested materials to help parents fulfill their role as first teacher.

Rural Excel is also producing videotapes for parents on understanding and working with their children and for teachers on how they can enhance parent involvement. A second set of *Family Connections*, geared for parents of kindergarten children, is in the early stages of development.

Technology Development

During the 1980s it became well-recognized that rural schools needed more than advanced learning technologies. They also needed technology to survive in a national environment of rapid and massive educational change.

That rural schools have adopted, adapted, integrated, and provided leadership on the uses of new technologies is a tribute to their visions and abilities. However, this could not have happened without overarching

structural support, access to ideas and leadership, technical assistance, and constant exploring of the uses of technology. Rural schools have depended upon the regional laboratories for some of this support.

In North Dakota, for example, 70 percent of the schools credit demonstrations, meetings, and workshops sponsored by the Mid-continent Regional Educational Laboratory as their primary source of information for distance learning. The laboratory developed a half-dozen cooperative arrangements in which students and teachers could learn to apply multimedia technology.

This is a state where 68 percent of the districts enroll fewer than 250 students. In nearly all of the almost 100 schools initially participating in the laboratory's Decisions About Technology project, administrators said that distance learning was indeed serving their students' long-term needs. In addition, almost 80 percent of the students said they wanted more courses through distance learning.

In North Dakota, for example, 70 percent of the schools credit demonstrations, meetings, and workshops sponsored by the Mid-continent Regional Educational Laboratory as their primary source of information for distance learning.

The Mid-continent laboratory has begun a similar program in Missouri, focusing on fiber optic interactive television.

The Southwest Educational Development Laboratory continues to share its expertise in educational technology with rural educators and to support technology training of teachers. It recently sponsored a three-day educational technology conference in which it brought educators and experts together to share their experiences with new technologies. Well-attended workshops included "Cable in the Classroom," "CD-ROM *vs* On-Line Electronic Searching," "Facility Planning for Technology Use," "Financing Technology," and "Using Distance Learning to Meet Local Educational Needs."

Another notable means of dissemination is through the laboratory's award-winning publication, *SEEDS: SEDL Rural Technology Update*, which the laboratory makes available to rural educators and policymakers. Typical of issues discussed in *SEEDS* is a perspective on future learning

Southwest Educational Development Laboratory

Southwest Educational Development Laboratory (SEDL) serves the states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. SEDL's mission is to find, share, and sustain effective solutions for the most urgent problems facing educational systems, practitioners, and decision makers in the southwestern United States. The laboratory's particular emphasis is on ensuring educational equity for children and youth who live in poverty; who are Hispanic, black, or other minorities; or who have physical or mental disabilities.

Although strongly rural in character, the regional nature of the Southwest is a study in extremes. It has some of the nation's most densely populated metropolitan areas. The region also has some of the nation's richest as well as the poorest counties and schools, and some of the nation's highest and lowest percentages of public school enrollments among black, Hispanic, and American Indian students.

SEDL integrates its work in rural education into all its programs. Along with these efforts, SEDL's Rural, Small School Initiative is:

- Identifying the characteristics of rural at-risk students in the region; disseminating information about promising programs for rural at-risk students; and conducting case studies to examine selected programs in depth.
- Facilitating the use of small, rural school improvement efforts that use distance learning and interactive technologies.
- Providing policymakers and educators with information regarding the effects of alternative organizational plans in small, rural schools, particularly those serving at-risk populations.

State	Total # of Schools	% Rural Schools	% Rural Stude
Arkansas	1,095	45	31
Louisiana	1,366	24	18
New Mexico	646	35	15
Oklahoma	1,835	46	26
Texas	5,637	24	13

environments, designed to assist schools in anticipating the appropriate use of technology in transforming the educational process.

The Northwest Regional Educational Laboratory, believing that distance learning requires systemic changes in schools and districts, worked at three levels: state policy and planning, service delivery systems, and school sites. Distance learning already existed in many schools in the Northwest. The challenge was to guide it towards higher quality and ever-evolving new technologies, an effort that brought the laboratory into the role of evaluator of current uses of technology.

The laboratory's assistance made it possible for every state in the region to develop statewide strategies for educational technology. The distance learning efforts also led to the formation of the Northwest Educational Telecommunications Partnership, an alliance of the Northwest's five state education agencies. The alliance planned regional distance education initiatives primarily targeted at small, rural schools.

The [Northwest Regional Educational Laboratory's] assistance made it possible for every state in the region to develop statewide strategies for educational technology.

Throughout this report is frequent mention of the development of networks and information-gathering capacities that are now available to rural schools. All of them depend, in varying degrees, upon creative, flexible use of technologies developed and implemented by the regional laboratories.

SERVE-Line, operated by the SouthEastern Regional Vision for Education, is an on-line information system keyed particularly to the needs and interests of teachers in the Southeastern region. The system provides client networking capability and educational information, as well as laboratory information about products, services, and activities.

In addition, the Southeastern laboratory operates an Information Request Service through which information requested by teachers is retrieved from other computerized databases. Response packages tailored to the individual request include annotated bibliographies, selected journal article reprints, and selected microfiche. The laboratory is working with each state department of education in its region to establish similar databases.

The SouthEastern Regional Vision for Education is also assessing the effects of a regional telecommunications approach to initiating educational change in rural schools.

The purpose of this study is to develop, through collaborative efforts with the instructional technology directors in seven states, BellSouth, and the Appalachia Educational Laboratory, a series of seven, one-way video/ two-way audio teleconferences. The series will span 1992 and 1993. Each teleconference will focus on the use of a specific technology and will be designed by the host state.

The Pacific Region Educational Laboratory is reactivating distance learning and communications through new satellite technologies ...

The Southwest Educational Development Laboratory is supporting technology consortia throughout its five-state region. These consortia are composed of educators, policymakers, and technology experts who, together, are exploring ways new technologies can support rural, small school improvement.

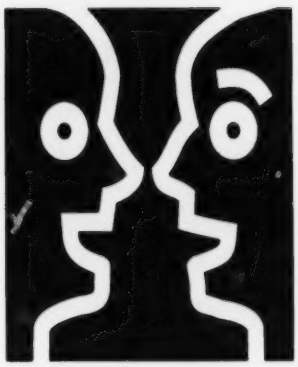
In addition, the laboratory is preparing case studies of projects that are using distance learning, two-way video, computer networking, and satellite teleconferencing. Once collected and analyzed, the information will be disseminated by workshops, videotapes, and publications.

The Pacific Region Educational Laboratory is reactivating distance learning and communications through new satellite technologies (the original telecommunications satellite for the region faded out in 1985). The restored PEACESAT service enables the laboratory to communicate with educators throughout the region, replacing the often-delayed use of FAX communications.

The North Central Regional Educational Laboratory's State Technology Planning and Policy Project has developed a regional network for policymakers, conducted research on technology planning and policymaking and brought regional leaders into contact with national experts. It also established an electronic network.

This project's study of the impact and cost-effectiveness of alternative distance learning strategies and technologies —intended for use by policymakers — fills a need expressed by several states in the region to

know which distance technology is best for their rural schools. Information in the report helps state policymakers make informed decisions and get the best technologies into the hands of rural educators at a relatively low cost.



Creating the Future

The experiences of the regional laboratories' rural initiatives are inspiring and important to the vitality and viability of our nation's rural schools. Many of these initiatives are continuing as essential components of rural school reforms. They have spawned new ideas, new projects.

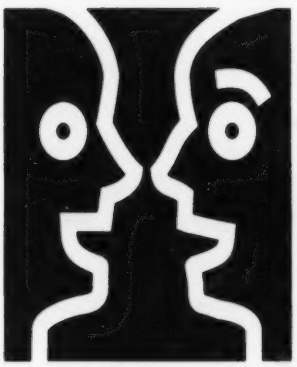
Every state in every region is participating in some kind of network based upon the regional laboratories' work — for technology advancement, school improvement, and the collection of data. People are learning from each other, either through electronic networks, teleconferencing, or extensive face-to-face opportunities. They also are connected to national and international trends — because of the resources of the laboratories.

The work is far from over. In fact, it will never be finished, especially as the public and the public school system set higher and higher goals for students and teachers. Laboratory staff report a broad concensus among rural educators about what they want:

- They want to enhance student achievement by integrating advanced learning technologies into their instruction.
- They want to focus on continued staff development, particularly with the aid of various telecommunications technologies.
- They want to move from "school improvement" to strategic planning for change, planning that would involve their communities, economic development experts, other agencies, and higher education institutions.

- They want better documentation of what they are doing and guidance on how to do it better.
- They want information on and alternatives for current funding strategies to create more equal opportunities for their students and teachers.
- They want to build upon knowledge gained from exemplary programs that are successful with at-risk student populations, including cost effective approaches to integrating human services.
- They want to explore alternatives to consolidation, such as clustering, sharing, collaboration, and various kinds of partnerships.
- They want to explore different structures, at both district and school levels.
- They want recognition for the people and programs that are highly successful.

In other words, rural educators want to keep rural education on the agendas of community, state, and national policymakers. The rural initiatives and efforts described in this document are helping build their capacity to do so — and creating better futures for young people and the isolated communities in which they live.



Publications on Rural Education Produced by the Regional Educational Laboratories

Rural School Policy and Reform

College Attendance Pattern of Rural Youth: Results from Rural Iowa's Class of 1983, North Central Regional Educational Laboratory, 1989, $3.

A study of high school graduates from 11 rural school districts in Iowa shows that three-fourths of the students who entered either two or four-year colleges earned degrees within five years of their high school graduation.

The Early Employment Experiences of Rural Youth: Early Results from Iowa's Class of 1983, North Central Regional Educational Laboratory, 1989, $3.

A portrait of Iowa's high school graduates from the class of 1983 shows that 60 percent continued on to some form of post-secondary education.

Looking Ahead to the Year 2000: Issues for Rural Schools, Far West Laboratory for Educational Research and Development, 1989, $10.

Policymakers, scholars, and practitioners explore rural school reform in these conference proceedings.

Disparities in Curricular Offerings: Issues and Policy Alternatives for Small Rural Schools, Appalachia Educational Laboratory, 1989, $4.50.

Policy alternatives for small, rural schools are divided into three different approaches.

Leaving Home: Circumstances Afflicting Rural America During the Last Decade and Their Impact on Public Education, Mid-continent Regional Educational Laboratory, 1992, $7.

Timely overview of the status of rural America and its impact on public education.

Rural Schooling: Obsolete or Harbinger of the Future?, Mid-continent Regional Educational Laboratory, 1992, $7.

An in-depth look at the quality of education in rural schools.

Alternatives to School District Consolidation, Far West Laboratory for Educational Research and Development, 1990, $4.

Inter-district sharing, partial reorganizations, extra-district cooperation, intermediate units, and the use of instructional technology are described as alternatives to rural school consolidation.

Hamilton County: A Rural District Profile, North Central Regional Educational Laboratory, 1989, $2.

This paper presents a detailed picture of a rural school district using census and state education agency figures, occupational information, and industry employment data.

Financing Rural Education in the North Central Region: A Pilot Study in Illinois, North Central Regional Educational Laboratory, 1989, $2.

This study determines the relationship between component property wealth and educational spending in Illinois rural schools, examines potential trends in component property wealth in Illinois, and identifies and facilitates collection of related databases in the other six North Central states.

Toward More Effective Education for Poor, Minority Students in Rural Areas: What the Research Suggests, Northwest Regional Educational Laboratory, ERIC Document ED 304 259.

An analysis of research on the education of poor, minority students in rural schools suggests that school improvement leaders focus on basic and higher order thinking and learning skills, cultural relevance in curriculum materials and teaching techniques, and the implementation of new instructional strategies such as cooperative learning, peer tutoring, and mastery learning.

A Demographic Study of Rural, Small School Districts in Four Appalachian States, Appalachia Educational Laboratory, 1988, $11.

The author analyzes four categories of school district data — enrollment figures, per pupil transportation costs, per pupil expenditures, and students per square mile — and concludes that "students per square mile" provides the most useful index of a school district's rurality.

Challenging the Comfortable Stereotype, Appalachia Educational Laboratory, 1988, $3.50.

Rural scholar Jonathan Sher challenges rural educators to reclaim the power of education and to put it to work in the lives of the students and communities they serve.

Review of Public School Finance in the AEL States, 1990, $4.50.

The progression of public school systems and their financing measures are reviewed in four states with recent or pending school finance suits.

Rural Students at Risk, North Central Regional Educational Laboratory, 1988, $6.

Data from three rural, small schools in Iowa demonstrate the importance of high educational and career expectations among school staff and parents.

Allocating Resources in Rural and Small Schools, The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1990, $17.50.

Topics addressed in these reprints of articles include working with the press, budget development strategies, community involvement, allocating resources, new revenue sources, and cooperation and consolidation.

Thinking and Rural At-Risk Students, Research for Better Schools, 1991, $44.95.

This video shows actual classroom interaction between teacher and students in a classroom where learning is made interesting and challenging and there is an emphasis on metacognition and higher order thinking skills.

Managing Change in Rural Schools: An Action Guide, The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1991, $10.95.

Research knowledge about educational change is combined with knowledge about the unique characteristics of rural schools to help program managers in rural schools traverse the bumpy road to change.

Promising Programs and Practices

Ideas That Work in Small Schools, The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1989, elementary school edition $5, high school edition $6.

The laboratory describes successful practices in use in small rural schools throughout the Northeast.

Promising Programs and Practices: A Sourcebook for Rural Educators, Far West Laboratory for Educational Research and Development, 1989, $8.

Nominated for inclusion by superintendents, principals, and teachers, the over 60 innovative programs and practices described in this catalog have proven to work in poor, small, or isolated school districts throughout Arizona, California, Nevada, and Utah.

Curriculum Renewal Handbooks, Northwest Regional Educational Laboratory, in press.

This series of handbooks describes strategies, technical assistance, and resource information districts that helps small, isolated, rural school districts to actively engage in curriculum renewal.

> **Handbook One: Curriculum Renewal in Small, Rural Schools, What Is Involved?**
>
> **Handbook Two: The Use of Consortia to Engage in Curriculum Renewal**
>
> **Handbook Three: The Use of Teacher Networks to Engage in Curriculum Renewal**
>
> **Handbook Four: The Use of Community-Based Support to Engage in Curriculum Renewal**

Rural School Source Book: Exemplary Programs, Practices and Resources for Rural Educators, Mid-continent Regional Educational Laboratory, 1988, free.

Staff development, academic planning, extra-curricular activities, and curriculum are topics for the more than 100 exemplary programs and practices being used by rural schools in the central region of the country.

The Multigrade Classroom: A Resource Handbook for Small, Rural Schools, Northwest Regional Educational Laboratory, 1989, $29.95.

Strategies, promising practices, and resources for the multigrade educator are presented in seven units: (1) research on multigrade instruction, (2) classroom organization, (3) classroom management and discipline, (4) instructional delivery and grouping, (5) self-directed learning, (6) planning and using peer tutoring, and (7) instructional organization and curriculum.

Management Strategies for Administrators in Small Schools, The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1989, $15.

Administrators get information on special problems of managing small schools in a packet of reprints of articles from recent publications and syntheses of research findings.

Work in Progress: Restructuring in Ten Maine Schools, The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1991, $6.

Recounts the experiences of 10 schools as they addressed fundamental questions about the purpose, content, and organization of schooling in their work on a restructuring grant from the Maine Department of Education.

Outstanding Teaching Practice Series, Small and Rural Schools

Thinking Skills, K-6, 1988
Thinking Skills, 7-12, 1989
Multilevel Grouping, Grades 6-12, 1990
Multilevel Grouping, Grades Preschool-5

The Regional Laboratory for Educational Improvement of the Northeast and Islands, free.

Laboratory Fellows selected by the Teacher Recognition Program of the Rural, Small Schools Network describe their classroom practices; profiles of teachers and schools are included.

Strengthening Science Outreach Programs for Rural Elementary Schools: A Manual for Museum Staffs, Southwest Educational Development Laboratory, 1990, $19.

Museums and other science-education organizations get tips on obtaining leadership support for working with schools, establishing partnerships, finding funding, identifying and developing program content, and evaluating program effectiveness.

Using Partnerships to Strengthen Elementary Science Education: A Guide for Rural Administrators, Southwest Educational Development Laboratory, 1990, $10.

This companion guide to *Strengthening Science Outreach Programs for Rural Elementary Schools* describes advantages and requirements of science partnerships from an administrative perspective.

From One Rural School to Another: Promising Practices from Kentucky, Tennessee, Virginia and West Virginia, Appalachia Educational Laboratory, 1990, $5.50.

Programs found to be effective in urban and suburban schools may not be appropriate for rural schools; here are some innovative practices from rural schools.

Rural Administrative Leadership Handbook, Northwest Regional Educational Laboratory, 1990, $10.90.

Rural administrators from high-achieving schools were surveyed to find out what constitutes effective leadership.

Rural School District Cooperatives, Northwest Regional Educational Laboratory, 1990, $7.80.

Cooperation between school districts can invigorate teaching staffs, provide a network for exchanging information among teachers and administrators, and be a viable alternative to consolidation.

Principles of Successful Chapter 1 Programs: A Guidebook for Rural Educators, Far West Laboratory for Educational Research and Development, 1989, $5.

The authors have identified five principles to help educators in rural school districts plan and implement successful Chapter 1 programs.

Clustering: Working Together for Better Schools, Mid-continent Regional Educational Laboratory, 1990, free.

Schools that cluster work together for a common educational goal, pooling resources such as money and teachers without giving up their autonomy.

Rural Thinking Skills Catalog, Research for Better Schools, $24.95.

This catalog identifies 248 resources on teaching thinking skills that are particularly suited to rural schools and tells educators where to find them.

Early Intervention for Students at Risk: Three Profiles from Arizona's Rural Schools, Far West Laboratory for Educational Research and Development, 1990, $4.

Themes such as concentrated staff effort, enriched curriculum, and extended quality time are played out in these rural settings.

The Rural Teaching Principal: Meeting the Challenges of Multiple Roles, Far West Laboratory for Educational Research and Development, 1990, $4.

Rural principals who also teach discuss how they manage their many roles.

Cooperative Learning in Rural and Small Schools, The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1991, $15.

This series of reprints describes cooperative learning, how it is set up, and how educators in rural, small schools can go about implementing the concept.

Distance Education

The Promise of Distance Learning, Far West Laboratory for Educational Research and Development, 1989, $5.50.

Effective strategies for introducing distance education entail a careful plan, structure, implementation, support, and evaluation.

Distance Education: Promise, Practice, and Pedagogy, Northwest Regional Educational Laboratory, 1989, $3.10.

Many of the agencies that produce distance learning courses for use with telecommunications technology claim that classroom facilitators need not be certified teachers but state education agencies disagree.

The School Administrator's Primer on Distance Learning: Two-Way Interactive Television (I-TV) via Fiber Optics, Mid-continent Regional Educational Laboratory, 1992, free.

Addresses the administrator's need to understand the educational and cost issues of two-way interactive television technology.

Audiographics Distance Learning: A Resource Handbook, Far West Laboratory for Educational Research and Development, 1990, $13.50.

This handbook is a step-by-step guide for educators interested in audiographics, a low-cost, easy-to-use distance learning system that combines voice transmission, computer networking, the telefax.

Distance Learning in North Dakota: A Cross Technology Study of the Schools, Administrators, Coordinators, Instructors, and Students, Mid-continent Regional Educational Laboratory, $9.

Students, teachers, and other educators surveyed say they are pleased with distance learning courses and would use them again if given the opportunity.

SEEDS: SEDL Rural Technology Update, Southwest Educational Development Laboratory, free.

A quarterly publication that reports programs, practices, processes, policy, and ideas that foster effective learning in rural schools and communities in the Southwest.

Rural Schools and Community Development

Noteworthy, Mid-continent Regional Educational Laboratory, 1989, free.

New choices and public policies could make rural schools a contributor to community economic development rather than an economic drain.

Establishing and Enriching School-Community Ties in Small Schools, The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1988, $11.50.

Small school administrators can acquire information on topics such as community leadership skills, the role of the school in community development, barriers that impede strong school-community ties, and the school's role in supporting single and working parents in this series of reprints.

Community Economic Development Innovation: The Key to Rural School Improvement and Rural Revitalization, Mid-continent Regional Educational Laboratory, 1988, $8.

The bad news is that rural communities can expect no growth in industries that have been their economic backbone, but the good news is that there are viable alternatives.

School-Community Collaboration in a Rural Setting: Sources and Profiles, Far West Laboratory for Educational Research and Development, 1991, $4.

Rural schools looking for resources to help them develop a school and community collaborative process might start by reading these capsule summaries of regional, state, and local efforts.

Rural Areas in the 1980s: Prologue to the 21st Century, Appalachia Educational Laboratory, 1989, $4.

Community problem solving is a legitimate role for schools but some policymakers still need to be convinced of the fact.

Education Reform and Rural Economic Health: Policy Implications, Appalachia Educational Laboratory, 1989, $4.

With the future of rural industrialization "clouded at best," the service sector, small business, and information technologies will lead the way in local economic development and rural schools need to be ready with quality education.

Distress and Survival: Rural Schools, Education, and the Importance of Community, Northwest Regional Educational Laboratory, 1991, $13.

Rural areas have two significant strengths — their schools and their sense of community — and there are several ways the two can collaborate.

Staff Recruitment and Development

Staff Development in Rural, Small Schools: A View from Rural Educators, Southwest Educational Development Laboratory, 1988, $8.

A survey of rural teachers and principals shows that their most common staff development consists of one shot lectures with little follow-up or attention to local needs.

Patterns for Country Stars: Systematic Staff Development for Rural, Small Schools, Southwest Educational Development Laboratory, 1991, $60.

Designed for school and district staff who lead staff development, this training package takes participants from the very beginning of the school improvement effort — starting with the district's formation of a mission statement and setting priorities — straight through to implementing and evaluating an improvement plan.

Meeting the Challenge: An Educational Videotape for Rural Schools, Southwest Educational Development Laboratory, 1990, $15.

This companion training videotape to "Patterns for Country Stars: Systematic Staff Development for Rural, Small Schools," introduces the need for systematic staff development and provides an in-depth look at the professional development model.

Overcoming Professional Isolation in Rural, Small Schools, Northwest Regional Educational Laboratory, 1991, $11.60.

Contains discussion of needs and frustrations rural teachers face, case studies of two rural schools, outline of characteristics of education in a rural setting that contribute to isolation, and specific development strategies to overcome these stumbling blocks.

Attracting, Retaining, and Developing Quality Teachers in Small Schools, The Regional Laboratory for Educational Improvement of the Northeast and Island, 1988, $11.50.

Information to help rural and small school educators attract, retain, and develop quality teachers is contained in this packet of over 20 articles from the professional literature on teacher recruitment and retention.

Strategic Reading Project (pilot), North Central Regional Educational Laboratory, 1992, $150; Unit I: Introduction; Unit II: Prior Knowledge; handbooks and videotapes.

A staff development project for K-8 schools committed to improving students' ability to read, the Strategic Reading Project is based on the successful "Rural Schools Reading Project" approved for dissemination through the National Diffusion Network. Four additional units and accompanying audiotapes on inferencing, text structure, work meaning, and metacognition will be available in the fall of 1992.

Restructuring to Promote Learning in America's Schools, North Central Regional Educational Laboratory, 1991, $300.

Nine two-hour videotapes and accompanying guidebooks were adapted from a 1990 NCREL/PBS national videoconference series; each video combines research with practice to explore changes in specific areas of schooling.

Schools That Work: The Research Advantage, North Central Regional Educational Laboratory, 1992, $200.

Eight one-hour videotapes and accompanying guidebooks adapted from a 1991-92 NCREL/PBS national videoconference series show how research has influenced classroom practice and how schools have involved communities in creating rich teaching and learning environments.

Teacher Preparation for Rural Schools, Northwest Regional Educational Laboratory, 1988, ERIC Document ED 295 772.

One way to cut teacher turnover in rural areas is to develop teacher training courses that prepare prospective teachers for the unique characteristics of rural schools and communities.

Recruiting and Retaining Teachers in Rural Schools, Far West Laboratory for Educational Research and Development, 1990, $4.

Rural school district administrators are finding they need to sweeten job offers in order to stave off a major teacher shortage.

Guidelines for Selecting Staff Development Providers: A Resource Book for Rural Educators, Southwest Educational Development Laboratory, 1990, $44.

Written for small, rural school districts trying to decide what kind of staff development to pursue, this guide is full of suggestions on topics such as assessing local needs and resources, hiring qualified and effective consultants, and planning staff development sessions.

Selected Publications from the ERIC Clearinghouse for Rural Education and Small Schools at Appalachia Educational Laboratory

Achievement of Equity in Capital Outlay Financing: A Policy Analysis for the States by David C. Thompson and G. Kent Stewart, 1989, $12.50.

Directory of Organizations and Programs in Rural Education by the ERIC Clearinghouse on Rural Education and Small Schools and the National Rural Education Association, 1990, $6.50.

The Distance Education Handbook: An Administrator's Guide for Rural and Remote Schools by Bruce Barker, 1992, $10.

Financing Rural and Small Schools: Issues of Adequacy and Equity by David S. Honeyman, David C. Thompson, and R. Craig Wood, 1989, $11.50.

A Framework for Evaluating State Policy Options for the Reorganization of Rural, Small School Districts by E. Robert Stephens, 1991, $15.

Systemic Reform in Six Rural Districts: A Case Study of First Reactions to the Kentucky Education Reform Act of 1990, 1992, $10.50.

Managing Smallness: Promising Fiscal Practices for Rural School District Administrators by Deborah Inman Freitas, 1992, $10.

In Our Own Words: Community Story Traditions to Prevent and Heal Substance Abuse (A teacher's guide with examples from Native American and rural contexts) by Michael Tierney, 1992, $10.

In addition, the following digests are available at no charge from ERIC/CRESS:

Adult Literacy Programs in Rural Areas, 1990.

Building Academically Strong Gifted Programs in Rural Schools, 1989.

Capital Outlay: A Critical Concern in Rural Education, 1990.

Economic Support for Education in Rural School Districts, 1988.

Efficient Financial Management in Rural School Districts, 1988.

Funding Rural, Small Schools: Strategies at the Statehouse, 1991.

The Impact of Rural Industries on the Outcomes of Schooling in Rural America, 1989.

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Interactive Distance Learning Technologies for Rural and Small Schools: A Resource Guide, 1987.

Nontraditional Education in Rural Districts, 1989.

Preparing Rural Students for an Urban Environment, 1988.

Recent Trends in Rural Poverty, 1991.

Rural Philosophy for Education: Wendell Berry's Tradition, 1992.

Touching the Past, Enroute to the Future: Cultural Journalism in the Curriculum of Rural Schools, 1989.

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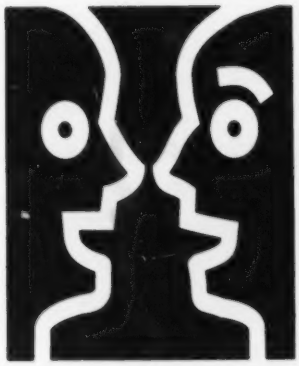

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